

# Foreword

## How Forecasts Are Made

Most of the annual streamflow in the Western United States originates as snowfall. This snowfall accumulates high in the mountains during winter and early spring. As the snowpack accumulates, hydrologists estimate the runoff that will occur when it melts. Predictions are based on careful measurements of snow water equivalent at selected index points. Precipitation, temperature, soil moisture and antecedent streamflow data are viewed in conjunction with snowpack data to prepare runoff forecasts. This report presents a comprehensive picture of water supply outlook conditions for areas dependent upon surface runoff. It includes selected streamflow forecasts, summarized snowpack and precipitation data, reservoir storage data and narratives describing current conditions.

Streamflow forecasts are cooperatively generated by Soil Conservation Service and National Weather Service hydrologists. Forecasts become more accurate as more data affecting runoff becomes known. For this reason, forecasts are issued that reflect three future precipitation conditions — Below Normal, Average, and Above Normal. These forecasts are terms reasonable minimum, most probable, and reasonable maximum. Actual streamflow can be expected to fall between the lower and upper forecast values eight out of ten years.

Snowpack data are obtained by using a combination of manual and automated measurement methods. Manual readings of snow depth and water equivalent are taken at locations called snow courses on a monthly or semi-monthly schedule during the winter. In addition, snow water equivalent, precipitation, temperature, and other parameters are monitored on a daily basis and transmitted via radio telemetry to central data collection facilities. Both monthly and daily data are used to project snowmelt runoff.

## For More Information

Copies of *Monthly Water Supply Outlook Reports* and other reports may be obtained from the states listed below. An annual snow survey data summary is published by the Soil Conservation Service for each of the western states. Historical snow survey data may be obtained at those same offices.

STATE	ADDRESS
Alaska	201 East 9th Ave., Suite 300, Anchorage, AK 99501-3687
Arizona	201 East Indianola, Suite 200, Phoenix, AZ 85012
Colorado	2490 West 26th Ave., Denver, CO 80211
New Mexico	517 Gold Ave. S.W., Room 3301, Albuquerque, NM 87102-3157
Idaho	304 North 8th Street, Room 345, Boise, ID 83702
Montana	10 East Babcock, Room 443, Federal Building, Bozeman, MT 59715
Nevada	1201 Terminal Way, Room 219, Reno, NV 89502
Oregon	1220 Southwest 3rd Ave., Room 1640, Portland, OR 97204
Utah	4402 Federal Building, 125 South State Street, Salt Lake City, UT 84147
Washington	360 U.S. Court House, Spokane, WA 99201-1080
Wyoming	Federal Building, 100 East "B" Street, Casper, WY 82601

In addition to state reports, a *Water Supply Outlook* for the Western United States is published by the Soil Conservation Service and National Weather Service monthly, January through May. Reports may be obtained from the Soil Conservation Service, West National Technical Center, 511 Northwest Broadway, Room 248, Portland, OR 97209.

### Published by other agencies:

Water Supply Outlook Reports prepared by other agencies include: California — Snow Survey Branch, California Department of Water Resources, P.O. Box 388, Sacramento, CA 95802; British Columbia — The Ministry of Environment, Water Investigations Branch, Parliament Buildings, Victoria, British Columbia, V8V 1X5; Yukon Territory — Department of Indian and Northern Affairs, Northern Operations Branch, 200 Range Road, Whitehorse, Yukon Territory, Y1A 3V1; Alberta, Environment Technical Services Division, 9820 106th St., Edmonton, Alberta T5K 2J6.

# Utah Water Supply Outlook

and

## Federal – State – Private Cooperative Snow Surveys

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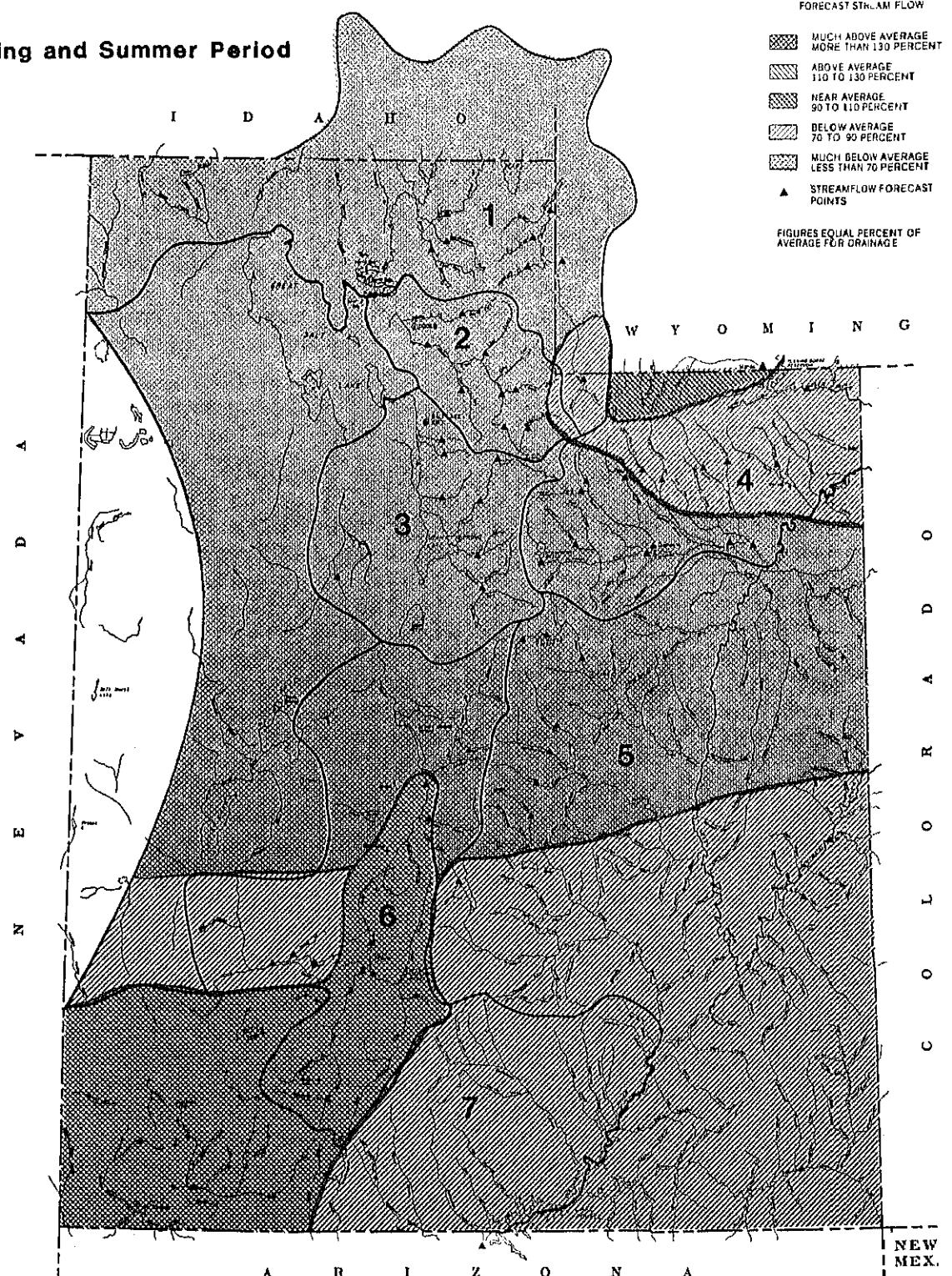
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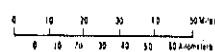


## Streamflow Prospects for Utah

### Spring and Summer Period



- 1 BEAR RIVER BASIN
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## GENERAL OUTLOOK

### SUMMARY

April first snow water measurements are generally in the 60 to 70% of average range following another month of below average precipitation. Streamflow forecasts have been reduced another 5 to 15% and it is becoming likely that some reservoirs will not fill. Without abundant spring and summer rains water shortages are likely in areas lacking sufficient groundwater or stored reserves.

### SNOWPACK

March storms produced only about one-half as much additional snow water accumulation as is normal for the month. Many watersheds in the State have even less snow water than at this time last year--another very poor snow year. Not since water years 1966 and 1967 have we had two back-to-back below average years of this magnitude on a state-wide basis. Southwest-ern Utah experienced the second consecutive month of net snow water loss. April first snow water equivalent ranges from 61% of average on the Weber River watershed to 74% on the Sevier.

### PRECIPITATION

Precipitation at mountain stations was much below average during March continuing the dry pattern begun last month. Mountain precipitation was distributed more evenly in March, however, with most areas across the State receiving 50 to 60% of normal precipitation for the month. Valley precipitation stations generally received 60 to 80% of average during March with southern stations faring slightly better than sta-tions to the north. Water year accumulations at northern valley stations are near 70% of normal which is close to amounts recorded last year. October through March precipitation at southern valley stations remains generally above average with the Upper Sevier at 110% and the Virgin at 120%.

## RESERVOIRS

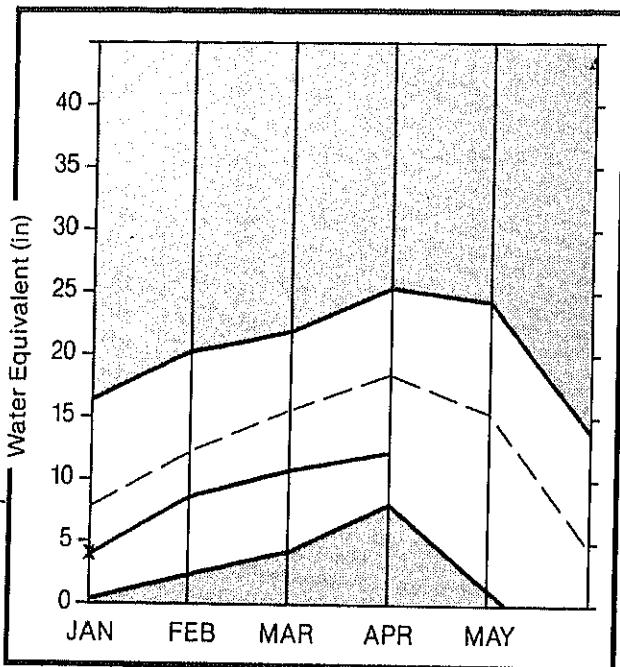
Stored water in 26 of Utah's key reservoirs is still above usual for April first (117%). Volumes at this time are 87% of last years value. Poor snowpacks, early melt, and poor forecasted flows have prompted managers to store as much as possible so far this season. With the exception of the Enterprise Reservoirs, Pineview, and East Canyon, most reservoirs will fill this season and meet the demands of an average demand season. There remains the concern, however, that another droughty winter wouldn't provide sufficient inflow for next seasons water demands. A concern in the Weber Basin is that present total stored water in that basin is over 10,000 ac-ft less than on April 1, 1977.

## STREAMFLOW

Persistent warm, dry weather continues to erode prospects for summer runoff. Across the State predicted volumes have fallen by an average of 9% compared to average. Worst conditions exist in the Weber Basin with East Canyon lowest at 26% of average. Several other streams in this basin are forecast at less than 40% of average. Other forecasts are typically near 60% of average with 80% expected in the Sevier Basin to near average in southern Utah. It is likely, however, that these most probable values may be optimistic in view of the droughty trend that seems to persist. These expectations will decline even further with less than average precipitation in April.

## Bear River Basin

Mountain snowpack\* (inches)



\*Based on selected stations

Maximum       Average      
Minimum       Current   

### WATER SUPPLY OUTLOOK:

Snow water content on the Bear River watershed is greater than last year at this time but only 68% of average. March storms contributed only about half as much additional water content to the snowpack as is usual for the month. Streamflow predictions have declined to an average of 59% of usual with the April-July predictions for the Bear nr Randolph the lowest at 46% of average. Reservoir storage is 106% of average.

For more information contact your local  
Soil Conservation Service Office:  
Tremonton Field Office 801-257-5403  
Logan Field Office 801-753-5616

## BEAR RIVER BASIN

## STREAMFLOW FORECASTS

FORECAST POINT	FORECAST PERIOD	25 YR. AVG. (1000AF)	MOST PROBABLE (1000AF)	MOST PROBABLE (% AVG.)	REAS. MAX. (1000AF)	REAS. MAX. (% AVG.)	REAS. MIN. (1000AF)	REAS. MIN. (% AVG.)
BEAR RIVER near UT-WY Stateline	APR-JUL	116.0	88.0	76	115.0	99	60.0	52
BEAR near Woodruff	APR-JUL	150.0	98.0	65	175.0	117	20.0	13
WOODRUFF CREEK near Woodruff	APR-JUL	17.3	11.0	64	15.0	87	7.0	40
BIG CREEK near Randolph	APR-JUL	5.3	2.9	55	6.0	113	1.0	19
BEAR near Randolph	APR-JUL	126.0	57.7	46	0.0		0.0	
SMITHS FORK near Border	APR-SEP	123.0	75.0	61	140.0	114	30.0	24
THOMAS FORK near Stateline	APR-SEP	37.0	20.0	54	40.0	108	10.0	27
BEAR RIVER near Harer	APR-SEP	310.0	150.0	48	277.0	89	60.0	19
CUB RIVER near Preston	APR-JUL	46.8	28.0	60				
LITTLE BEAR RIVER near Paradise	APR-JUN	42.0	26.0	62	40.0	95	10.0	24
LOGAN RIVER near Logan	APR-JUL	122.0	70.0	57	95.0	78	45.0	37
BLACKSMITH FORK near Hyrum	APR-JUL	51.0	30.0	59	45.0	88	15.0	29

RESERVOIR STORAGE (1000AF)				WATERSHED SNOWPACK ANALYSIS				
RESERVOIR	USEABLE CAPACITY	** USEABLE STORAGE **			WATERSHED	NO. COURSES	THIS YEAR AS % OF	
		THIS YEAR	LAST YEAR	AVG.		AVG'D	LAST YR. AVERAGE	
BEAR LAKE	1421.0	1064.7	1066.2	1002.1	BEAR RIVER, UPPER IN UTAH	6	109	70
HYRUM	15.3	15.3	13.4	12.2	BEAR RIVER, LOWER IN UTAH	10	133	67
PORCUPINE	11.3	5.3	11.3	5.0	BEAR R. DRAINAGE IN UTAH	15	125	67
WOODRUFF NARROWS	55.8	39.9	—	—	BEAR RIVER, UPPER	12	113	72
WOODRUFF CREEK		NO REPORT			BEAR RIVER, LOWER	19	196	64
					BEAR RIVER DRAINAGE	29	127	68
					LOGAN RIVER	5	141	68
					RAFT RIVER	4	99	64
					BEAR RIVER BASIN	35	122	66

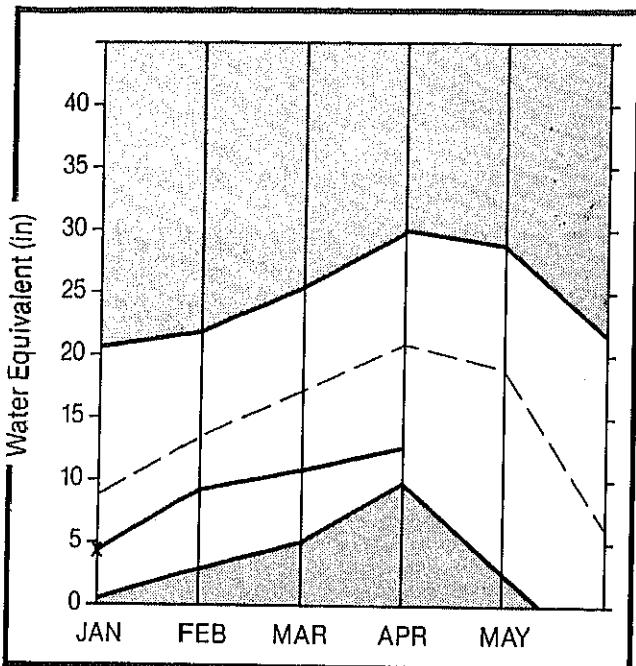
1 - Reas. max. and reas. min. forecasts are for 5% and 95% exceedance levels and also (2) below.

2 - Corrected for upstream diversions or changes in reservoir storage.

The average is computed for the 1961-85 base period.

## Weber & Ogden Watersheds

### Mountain snowpack\* (inches)



\*Based on selected stations

Maximum       Average   

Minimum       Current

#### **WATER SUPPLY OUTLOOK:**

The Weber River watershed normally receives 3.5" additional snow water content in March. This March, however, only 1.8" were received (51% of average). April 1 snow water equivalent is less than last year and only 61% of average. Streamflow predictions have declined 12% compared to March 1. East Canyon for example is expected to flow at 26% of average. The high is forecast on Smith and Morehouse Creek at 71%. This dismal outlook means early and very low flows during times of irrigation and will likely not fill Pineview Reservoir. Only very excessive precipitation can overcome current deficits. Reservoir storage is 109% of average which is 10,000 ac-ft less than in 1977 at this same time.

For more information contact your local  
Soil Conservation Service Office:  
Layton Sub Office 801-544-91

## WEBER &amp; OGDEN WATERSHEDS in Utah

## STREAMFLOW FORECASTS

FORECAST POINT	FORECAST PERIOD	25 YR. AVG. (1000AF)	MOST PROBABLE (1000AF)	MOST PROBABLE (% AVG.)	REAS. MAX. (1000AF)	REAS. MAX. (% AVG.)	REAS. MIN. (1000AF)	REAS. MIN. (% AVG.)
SMITH AND MOOREHOUSE CREEK near Oakt	APR-JUN	30.1	21.5	71	25.0	89	15.0	50
WEBER RIVER near Oakley	APR-JUN	107.0	68.0	64	85.0	79	45.0	42
ROCKPORT RESERVOIR inflow	APR-JUN	120.0	70.0	58	95.0	79	35.0	29
CHALK CREEK near Coalville	APR-JUN	41.0	20.0	49	30.0	79	12.0	29
WEBER RIVER near Coalville	APR-JUN	127.0	65.5	52	0.0		0.0	
ECHO RESERVOIR inflow	APR-JUN	163.0	90.0	55	127.0	78	57.0	35
LOST CREEK near Croyden	APR-JUN	15.6	9.0	51	13.0	83	4.0	26
EAST CANYON CREEK near Morgan	APR-JUN	29.0	7.5	26	16.0	55	4.0	14
HARDSCRABBLE CREEK near Porterville	APR-JUN	16.4	10.2	55	18.0	98	4.0	22
WEBER RIVER at Gateway	APR-JUN	328.0	139.4	41	0.0		0.0	
SOUTH FORK OGDEN RIVER near Huntsvil	APR-JUN	59.0	20.0	34	32.0	55	8.0	14
PINEVIEW RESERVOIR inflow	APR-JUN	122.0	55.0	45	75.0	61	30.0	25
WHEELER CREEK near Huntsville	APR-JUN	6.3	2.7	43	4.0	64	2.0	32
FARMINGTON CREEK near Farmington	APR-JUL	8.2	2.9	35	7.0	85	1.0	12

## RESERVOIR STORAGE (1000AF)

## WATERSHED SNOWPACK ANALYSIS

RESERVOIR	USEABLE CAPACITY	** USEABLE STORAGE **	WATERSHED	NO. COURSES	THIS YEAR AS % OF
	THIS YEAR	LAST YEAR	AVG.	AVG'D	LAST YR. AVERAGE
CAUSEY	7.1	4.2	4.4	2.6	OGDEN RIVER
EAST CANYON	48.1	36.5	36.5	36.6	WEBER RIVER
ECHO	73.9	62.2	66.2	49.5	WEBER & OGDEN WATERSHEDS
LOST CREEK	20.0	17.9	16.2	13.3	
PINEVIEW	110.1	47.9	62.6	55.6	
ROCKPORT	60.9	33.0	41.2	30.9	
WILLARD BAY	165.5	139.6	164.9	125.3	

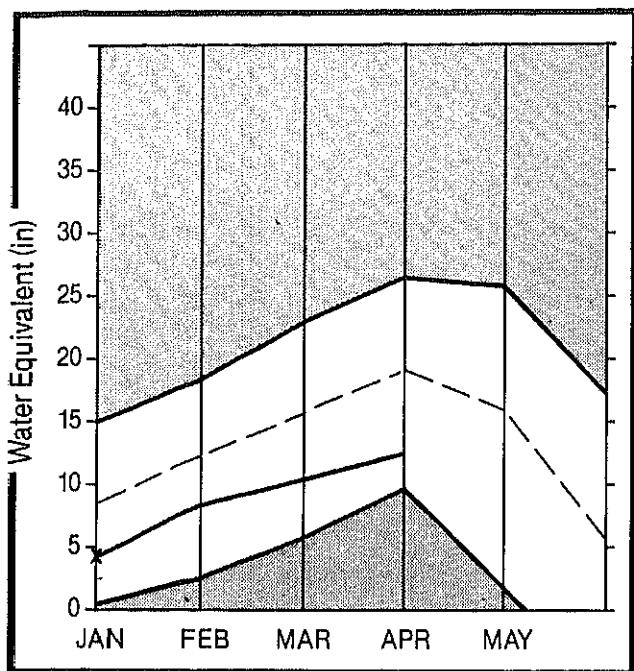
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The average is computed for the 1961-85 base period.

# Utah Lake, Jordan River & Tooele Valley

Mountain snowpack\* (inches)



\*Based on selected stations

Maximum           Average     

Minimum           Current     

## WATER SUPPLY OUTLOOK:

March storms yielded less than 60% as much additional water equivalent to the snowpack as usual on the watersheds that drain into the Jordan River and Tooele Valley. Snow surveys conducted near April first indicate the water content is only 86% of last year or 62% of average. Poor runoff expected this summer on March first is forecast even less on April first with 49% of average expected on the Provo below Deer Creek Reservoir. Most of the drainages into the Salt Lake Valley are near 50% of average. Amounts less than were measured in the very dry year of 1977. Reservoir storage is currently above average for April first.

For more information contact your local  
Soil Conservation Service Office:  
Midvale Field Office      801-524-4373  
Provo Field Office      801-377-5580

## UTAH LAKE, JORDAN RIVER &amp; TOOELE VALLEY

## STREAMFLOW FORECASTS

FORECAST POINT	FORECAST PERIOD	25 YR. AVG. (1000AF)	MOST PROBABLE (1000AF)	MOST PROBABLE (% AVG.)	REAS. MAX. (1000AF)	REAS. MAX. (% AVG.)	REAS. MIN. (1000AF)	REAS. MIN. (% AVG.)
SALT CREEK near Nephi	APR-JUL	19.5	8.0	53	18.0	133	3.0	22
PAYSON CREEK near Payson	APR-JUL	7.3	3.5	48				
HOBBLE CREEK near Springville	APR-JUL	29.3	10.0	43				
PROVO near Hailstone	APR-JUL	119.0	60.0	53	80.0	71	30.0	27
PROVO below Deer Creek Dam	APR-JUL	139.0	65.0	49	95.0	71	35.0	26
AMERICAN FORK near American Fk.	APR-JUL	34.0	15.0	44	20.0	59	12.0	35
UTAH LAKE inflow	APR-JUL	295.0	165.0	56	250.0	85	95.0	32
LITTLE COTTONWOOD CRK near SLC	APR-JUL	41.0	21.0	51	25.0	61	17.0	41
BIG COTTONWOOD CRK near SLC	APR-JUL	39.0	21.0	54	25.0	64	15.0	38
PARLEY'S CREEK near SLC	APR-JUL	17.0	7.5	44	13.0	76	5.0	29
MILL CREEK near SLC	APR-JUL	6.9	3.5	51	5.0	72	2.0	29
EMIGRATION CREEK near SLC	APR-JUL	4.6	2.0	43				
CITY CREEK near SLC	APR-JUL	9.0	4.0	44	5.0	56	3.0	33
VERNON CREEK near Vernon	APR-JUN	1200.0	950.0	79	1560.0	130	335.0	28
SETTLEMENT CREEK near Tooele	APR-JUL	2.3	1.8	70	3.0	130	1.0	43
SOUTH WILLOW CREEK near Grantsville	APR-JUL	9.0	1.5	50	3.0	100	1.0	33

RESERVOIR STORAGE (1000AF)				WATERSHED SNOWPACK ANALYSIS			
RESERVOIR	USEABLE CAPACITY	** USEABLE STORAGE **			WATERSHED	NO. COURSES	THIS YEAR AS % OF
		THIS YEAR	LAST YEAR	AVG.		AVG'D	LAST YR. AVERAGE
DEER CREEK	149.6	127.8	139.0	97.9	PROVO RIVER & UTAH LAKE	10	107 64
GRANTSVILLE	3.3	2.4	3.3	—	PROVO RIVER	5	100 54
SETTLEMENT CREEK	1.0	0.9	0.9	0.6	JORDAN RIVER & GREAT SALT	13	80 60
STRAWBERRY-ENLARGED	951.4	460.7	640.1	—	TOOELE & VERNON W.S.'S	5	75 66
UTAH LAKE	855.5	622.7	878.0	722.9	UTAH L.-JORDAN R.-TOOELE	28	86 62
VERNON CREEK	0.6	0.6	0.6	0.5			

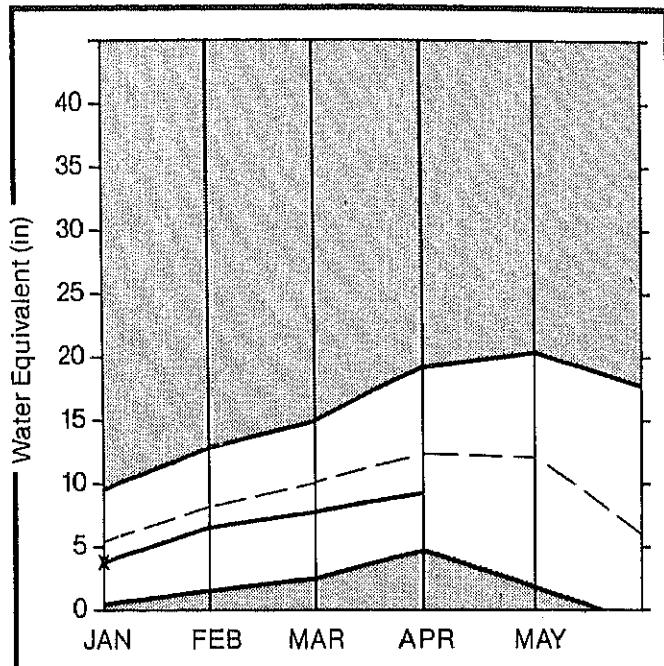
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2 - Corrected for upstream diversions or changes in reservoir storage.

The average is computed for the 1961-85 base period.

## Uintah Basin & Dagget SCD's

Mountain snowpack\* (inches)



\*Based on selected stations

Maximum      [hatched box]      Average      [dashed line]  
Minimum      [solid box]      Current      [solid line]

### WATER SUPPLY OUTLOOK:

Additional snow water accumulation on Uinta Mountain watersheds during March was only 58% of normal which leaves total snow water content on April first at 73% of average (85% of last year). Individual watersheds range from 59% of average on Ashley Creek to 108% on Sheep Creek. Average runoff this summer is forecast for Henry's Fork near Manila. All outlooks for runoff on the south slope have diminished since last month ranging from 79% on Lakefork River to 52% inflow expected to Strawberry Reservoir. Reservoir storage is good with 130-140% of average volumes reported.

For more information contact your local  
Soil Conservation Service Office:  
Roosevelt Field Office 801-722-4621

## UINTAH BASIN &amp; DAGGET SCD'S

## STREAMFLOW FORECASTS

FORECAST POINT	FORECAST PERIOD	25 YR. AVG. (1000AF)	MOST PROBABLE (1000AF)	MOST PROBABLE (% AVG.)	REAS. MAX. (1000AF)	REAS. MAX. (% AVG.)	REAS. MIN. (1000AF)	REAS. MIN. (% AVG.)
BLACK'S FORK near Millburne	APR-JUL	90.0	81.0	90	110.0	122	55.0	61
HENRY'S FORK near Manila	APR-SEP	51.0	52.0	102	70.0	137	35.0	69
FLAMING GORGE RESERVOIR inflow	APR-SEP	1441.0	1025.0	71	1330.0	92	750.0	52
ASHLEY CREEK near Vernal	APR-JUL	52.0	40.0	77	50.0	96	30.0	58
WEST FORK DUCESNE RIVER near Hanna	APR-JUL	28.0	16.6	59	20.0	71	12.0	43
DUCESNE RIVER near Tabiona	APR-JUL	105.0	66.0	63	80.0	76	50.0	48
ROCK CREEK near Mountain Home	APR-JUL	95.0	63.0	66	80.0	84	45.0	47
DUCESNE RIVER near Duchesne	APR-JUL	189.0	115.0	61	150.0	79	85.0	45
CURRENT CREEK near Fruitland	APR-JUL	20.0	12.8	64	16.0	80	10.0	50
STRAWBERRY RESERVOIR inflow	APR-JUL	60.0	31.0	52	40.0	67	20.0	33
STRAWBERRY RIVER at Duchesne	APR-JUL	69.0	39.0	57	50.0	72	30.0	43
LAKEFORK RIVER near Mountain Home	APR-JUL	70.0	55.0	79	70.0	100	45.0	64
YELLOWSTONE RIVER near Altonah	APR-JUL	66.0	49.0	74	75.0	114	25.0	38
DUCESNE near Myton	APR-JUL	223.0	120.0	54	180.0	81	50.0	22
UINTAH RIVER near Neola	APR-JUL	86.0	66.0	77	100.0	116	30.0	35
WHITE ROCKS RIVER near Whiterocks	APR-JUL	60.0	47.0	78	70.0	117	25.0	42
DUCESNE near Randlett	APR-JUL	257.0	160.0	62	340.0	132	50.0	19

RESERVOIR STORAGE (1000AF)				WATERSHED SNOWPACK ANALYSIS				
RESERVOIR	USEABLE CAPACITY	** USEABLE STORAGE **			WATERSHED	NO. COURSES	THIS YEAR AS % OF	
		THIS YEAR	LAST YEAR	AVG.			AVG'D	LAST YR.
FLAMING GORGE	3749.0	3019.6	2983.4	—	UPPER GREEN RIVER in UTAH	15	90	86
MOON LAKE	35.8	24.8	27.9	18.9	ASHLEY CREEK	2	73	59
RED FLEET	26.0	20.7	17.7	—	BLACK'S FORK RIVER	3	111	99
STEINAKER	33.3	30.1	32.2	22.6	SHEEP CREEK	2	88	108
STARVATION	165.3	162.5	161.2	141	DUCESNE RIVER	16	80	64
STRAWBERRY-ENLARGED	951.4	480.7	540.1	—	LAKE FORK-YELLOWSTONE CK.	3	71	63
					STRAWBERRY RIVER	4	108	66
					UINTAH-WHITEROCKS RIVERS	4	72	66
					UINTAH BASIN & DAGGET SCD	31	85	73

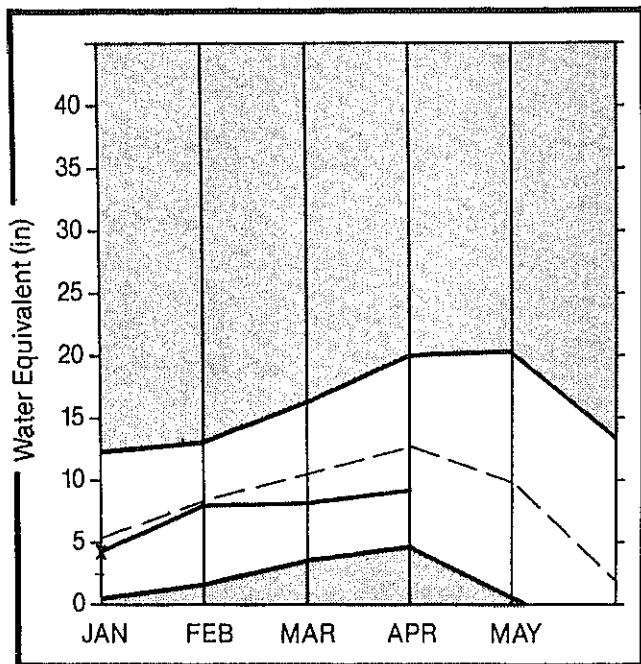
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The average is computed for the 1961-85 base period.

# Carbon, Emery, Wayne, Grand, and San Juan Co.

## Mountain snowpack\* (inches)



\*Based on selected stations

Maximum       Average      
Minimum       Current   

## WATER SUPPLY OUTLOOK:

March was the second consecutive month of much below average snowpack accumulation in southeastern Utah. Two months ago the snowpack was 95% of average. Snow surveys conducted near April first indicate the snow water content has fallen to 72% of normal. Forecasts of spring and summer runoff have slipped from a March first 76% of average to 68% on April first. Early streamflows are occurring and streamflow peaks will be weak this season. Reservoir storage remains good at 111% of usual.

For more information contact your local  
Soil Conservation Service Office:  
Price Field Office    801-637-0041

## CARBON, EMERY, WAYNE, GRAND, &amp; SAN JUAN Co.

## STREAMFLOW FORECASTS

FORECAST POINT	FORECAST PERIOD	25 YR. AVG. (1000AF)	MOST PROBABLE (1000AF)	MOST PROBABLE (% AVG.)	REAS. MAX. (1000AF)	REAS. MAX. (% AVG.)	REAS. MIN. (1000AF)	REAS. MIN. (% AVG.)
COLORADO near Cisco, UT	APR-JUL	3457.0	2800.0	81	3837.0	111	1936.0	56
HILL CREEK near Moab	APR-JUL	8.5	5.5	100	7.0	127	4.0	73
GREEN near Green Rv., UT	APR-JUL	3182.0	2550.0	80	3250.0	102	1850.0	58
GOOSEBERRY CREEK near Scofield	APR-JUL	12.0	7.9	68	11.0	92	5.0	42
SCOFIELD RESERVOIR inflow	APR-JUL	46.0	27.0	59	35.0	76	20.0	43
PRICE near Heiner	APR-JUL	78.0	46.0	69				
ELECTRIC LAKE inflow	APR-JUL	15.1	9.1	60	12.0	79	7.0	46
HUNTINGTON CREEK near Huntington	APR-JUL	55.0	39.0	60	45.0	82	25.0	45
COTTONWOOD CREEK near Orangeville	APR-JUL	47.0	29.0	62	45.0	96	15.0	32
FERRON CREEK near Ferron	APR-JUL	41.0	26.0	61	35.0	85	15.0	37
SEVEN MILE CREEK near Fish Lake	APR-JUL	6.5	5.4	83	7.0	108	4.0	62
MUDY CREEK near Emery	APR-JUL	21.0	12.0	57	17.0	81	7.0	33
NAVAJO RESERVOIR inflow	APR-JUL	764.0	600.0	79	883.0	116	378.0	49
SAN JUAN near Bluff, UT	APR-JUL	1091.0	900.0	82	1936.0	122	562.0	52

RESERVOIR STORAGE (1000AF)					WATERSHED SNOWPACK ANALYSIS			
RESERVOIR	USEABLE CAPACITY	** USEABLE STORAGE **	WATERSHED	NO. COURSES AVG'D	THIS YEAR AS % OF			
		THIS YEAR	LAST YEAR	AVG.	LAST YR.	AVERAGE		
HUNTINGTON NORTH	3.9	4.0	4.0	3.8	PRICE RIVER	3	124	66
JOE'S VALLEY	61.6	49.0	45.7	45.6	SAN RAFAEL RIVER	7	92	66
KEN'S LAKE	2.3	1.1	1.6	—	MUDY RIVER	2	78	52
MILL SITE	16.7	7.0	12.5	4.6	FREMONT RIVER	4	79	78
SCOFIELD	65.8	42.7	55.0	53.3	LASAL MOUNTAINS	2	67	37
					BLUE MOUNTAINS	2	63	37
					WILLOW CREEK - WHITE RIVE	3	107	66
					SOUTHEASTERN UTAH	22	84	72

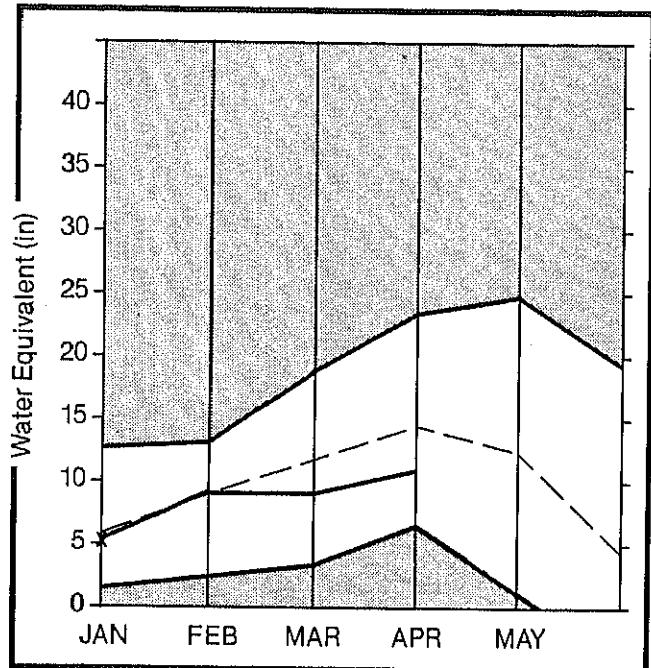
1 - Reas. max. and reas. min. forecasts are for 5% and 95% exceedance levels and also (2) below.

2 - Corrected for upstream diversions or changes in reservoir storage.

The average is computed for the 1961-85 base period.

## Sevier & Beaver River Basins

Mountain snowpack\* (inches)



\*Based on selected stations

Maximum      [Shaded Box]      Average      [Dashed Line]  
Minimum      [Shaded Box]      Current      [Solid Line]

### WATER SUPPLY OUTLOOK:

The Sevier River watershed received 59% of the normal additional snow water accumulation during March. Water equivalent in the snowpack now ranges from 53% of average on the South Fork of the Sevier to 82% on the Lower Sevier. The Beaver River has 83% of average snow water. Although reservoir storage remains very good for April first at 161% of average, the predictions for summer streamflow continue to decline in the persistent droughtiness. Forecasts range from a low of 48% on Ephriam Creek to 103% on the Sevier at Kingston.

For more information contact your local  
Soil Conservation Service Office:  
Richfield Field Office 801-896-6261  
Fillmore Field Office 801-743-6655

## SEVIER &amp; BEAVER RIVER BASINS

## STREAMFLOW FORECASTS

FORECAST POINT	FORECAST PERIOD	25 YR. AVG. (1000AF)	MOST PROBABLE (1000AF)	MOST PROBABLE (% AVG.)	REAS. MAX. (1000AF)	REAS. MAX. (% AVG.)	REAS. MIN. (1000AF)	REAS. MIN. (% AVG.)
SEVIER at Hatch	APR-JUL	52.0	50.0	96	65.0	125	40.0	77
SEVIER near Circleville	APR-JUL	44.0	45.0	102				
SEVIER near Kingston	APR-JUL	34.0	35.0	103	55.0	162	18.0	53
ANTIMONY CREEK near Antimony	APR-JUL	8.9	8.5	98				
E F SEVIER near Kingston	APR-JUL	24.0	25.0	104	40.0	167	15.0	63
SEVIER b/w Piute Dam	APR-JUL	56.0	60.0	107	95.0	170	30.0	54
CLEAR CREEK near Sevier	APR-JUL	22.0	20.0	91				
SIGURD to GUNNISON	APR-JUL	44.0	45.0	102	80.0	182	10.0	23
KINGSTON to VERMILLION DAM	APR-JUN	40.0	35.0	89				
VERMILLION DAM to GUNNISON	MAR-JUN	53.6	54.0	101				
SALINA CREEK at Salina	APR-JUN	10.2	10.0	55				
PLEASANT CREEK near Pleasant	APR-JUL	11.5	6.0	52				
EPHRAIM CREEK near Ephraim	APR-JUL	25.0	12.0	48				
SEVIER nr Gunnison	APR-JUL	99.0	95.0	96				
CHICKEN CREEK near Levan	APR-JUL	3.5	1.8	51	3.0	86	1.0	29
OAK CREEK near Oak City	APR-JUL	1.6	0.9	56	2.0	125	1.0	62
CHALK CREEK near Fillmore	APR-JUL	16.4	11.0	67	15.0	91	7.0	43
BEAVER RIVER near Beaver	APR-JUL	27.0	19.0	70	30.0	111	8.0	30
NORTH CREEK near Beaver (combined)	APR-JUL	14.8	12.0	82	25.0	171	4.0	27
MINERSVILLE RESERVOIR inflow	APR-JUN	6.9	6.1	69	0.0		0.0	

## RESERVOIR STORAGE (1000AF)

## WATERSHED SNOWPACK ANALYSIS

RESERVOIR	USEABLE CAPACITY:	** USEABLE STORAGE **			WATERSHED	NO. COURSES	THIS YEAR AS % OF	
		THIS YEAR	LAST YEAR	AVG.				
GUINNISON	20.3	20.3	20.3	16.3	U SEVIER (s of Richfield)	11	60	56
MINERSVILLE (RkyFd)	26.0	21.8	23.6	14.0	EAST FORK SEVIER RIVER	4	68	66
OTTER CREEK	52.7	52.7	52.4	35.8	SOUTH FORK SEVIER RIVER	7	56	53
PIUTE	71.8	71.8	70.6	46.2	LOWER SEVIER RIVER	13	103	82
SEVIER BRIDGE	236.0	239.0	232.9	186.2	BEAVER RIVER	3	111	83
PANQUITCH LAKE	22.3	19.8	17.4	—	SEVIER & BEAVER R. BASINS	27	58	74

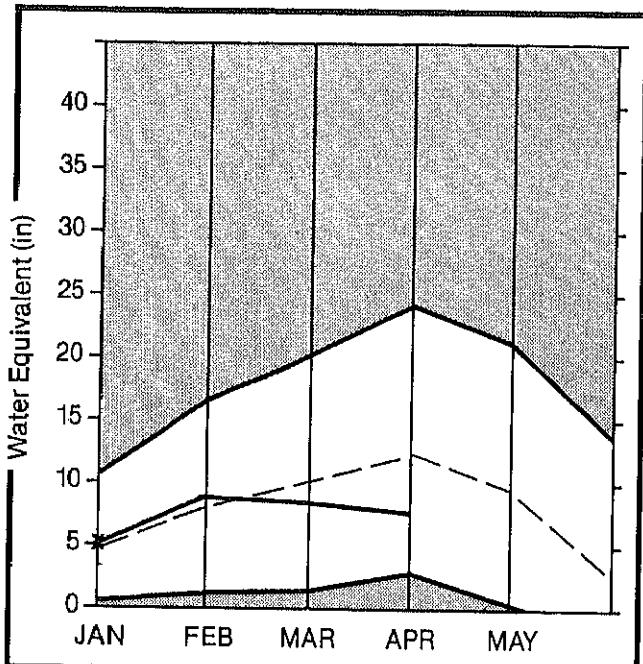
1 - Reas. max. and reas. min. forecasts are for 5% and 95% exceedance levels and also (2) below.

2 - Corrected for upstream diversions or changes in reservoir storage.

The average is computed for the 1961-85 base period.

## E. Garfield, Kane, Washington, & Iron Co.

Mountain snowpack\* (inches)



\*Based on selected stations

Maximum      [hatched box]      Average      [dashed line]  
Minimum      [hatched box]      Current      [solid line]

### WATER SUPPLY OUTLOOK:

Water content continued to decrease during March prolonging the downward trend begun in February. Snowpack in southwestern Utah now ranges from 46% of normal on the Enterprise to New Harmony drainages to 89% on the Escalante River watershed. Streamflows, however, will be sustained near average levels this season due to heavy fall and early winter precipitation. Warm temperatures will likely cause earlier than usual streamflow and weak peaks during the runoff. Enterprise Reservoir storage is poor and others in this part of Utah are near to below normal.

For more information contact your local  
Soil Conservation Service Office:  
Cedar City Field Office 801-586-2429

## E. GARFIELD, KANE, WASHINGTON, &amp; IRON Co.

## STREAMFLOW FORECASTS

FORECAST POINT	FORECAST PERIOD	25 YR. AVG. (1000AF)	MOST PROBABLE (1000AF)	MOST PROBABLE (% AVG.)	REAS. MAX. (1000AF)	REAS. MAX. (% AVG.)	REAS. MIN. (1000AF)	REAS. MIN. (% AVG.)
LAKE POWELL inflow	APR-JUL	8040.0	6000.0	65	8902.0	111	4940.0	61
VIRGIN near Hurricane	APR-JUN	68.0	75.0	110	100.0	147	55.0	81
SANTA CLARA near Pine Valley	APR-JUN	5.0	5.5	110				
COAL CREEK near Cedar City	APR-JUL	20.0	20.0	100	25.0	125	15.0	75

RESERVOIR STORAGE (1000AF)				WATERSHED SNOWPACK ANALYSIS			
RESERVOIR	USEABLE CAPACITY:	** USEABLE STORAGE **		WATERSHED	NO. COURSES	THIS YEAR AS % OF	
	THIS YEAR	LAST YEAR	AVG.			AVG'D	LAST YR. AVERAGE
GUNLOCK		NO REPORT		VIRGIN RIVER	5	68	66
LAKE POWELL	25002.0	0.0	21830.0	PAROWAN	4	83	83
QUAIL CREEK	40.0	38.0	32.0	ENTERPRISE TO NEW HARMONY	2	89	46
UPPER ENTERPRISE		NO REPORT		COAL CREEK	3	80	63
LOWER ENTERPRISE		NO REPORT		ESCALANTE RIVER	2	57	68
				SOUTHWESTERN UTAH	12	67	62

1 - Reas. max. and reas. min. forecasts are for 5% and 95% exceedance levels and also (2) below.

2 - Corrected for upstream diversions or changes in reservoir storage.

The average is computed for the 1961-85 base period.

# SNOW MEASUREMENT DATA

SNOW COURSE	ELEV.	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 1961-85
ALTA CENTRAL	8800	3/31	74	26.3	28.0	39.4
ASHLEY TWIN LAKES	10500	4/06	37	8.5	13.9	17.4
ATWOOD LAKE	10500	4/06	27	6.5	9.9	12.0
BEAVER CREEK DIVIDE	8280	4/01	20	5.9	6.5	12.2
BEAVER DAMS	8000	3/29	23	8.9	8.4	12.1
BEN LOMOND PEAK	8000	3/26	61	22.5	26.7	39.3
BEN LOMOND TRAIL	6000	3/26	26	10.4	10.0	18.8
BEVAN'S CABIN	6450	4/01	33	9.8	13.8	12.1
BIG FLAT	10290	3/26	51	16.5	15.6	19.2
BIRCH CROSSING	8100	3/29	9	3.0	5.8	6.7
BLACK'S FLAT-U.M. CK	9400	3/27	27	8.8	9.0	11.5
BLACK'S FORK	9200	3/29	-	7.9E	9.8	14.2
BLACK'S FORK GS-EF	9340	4/01	.42	9.0	8.0	9.7
BLACK'S FORK JUNCTN	8930	4/01	40	9.9	7.6	9.5
BOX CREEK	9300	3/27	38	11.1	9.8	14.1
BRIAN HEAD	10000	3/26	58	20.1	23.0	21.7
BRIGHTON	8750	3/31	57	17.8	21.5	37.6
BRIGHTON CABIN	8700	3/31	54	16.8	20.5	27.3
BROWN DUCK RIDGE	10600	4/01	51	14.0	17.5	19.7
BRYCE CANYON	8000	3/31	0	0.0	4.7	4.2
BUCK FLAT	9800	3/29	40	11.7	12.1	17.9
BUCK PASTURE	9700	4/06	45	11.7	14.5	16.4
BUCKBOARD FLAT	9000	3/29	24	8.6	15.1	13.1
BUG LAKE	7950	3/25	47	13.6	10.9	20.4
BURT'S-MILLER RANCH	7900	4/01	18	5.1	5.1	6.0
CAMP JACKSON	8600	4/01	-	9.0E	13.0	13.1
CASTLE VALLEY	9580	3/26	30	9.8	14.0	13.5
CHALK CREEK #1	9100	3/29	53	16.9	18.0	23.1
CHALK CREEK #2	8200	3/29	41	12.1	12.3	15.8
CHALK CREEK #3	7500	3/29	21	6.7	6.3	7.8
CHEPETA	10300	4/01	38	9.8	12.9	13.5
CHEPETA-WHITERKS. LK	10350	4/06	40	10.4	14.7	15.2
CITY CREEK	7500	3/29	43	15.4	17.7	28.3
CLEAR CREEK MEADOWS	9420	3/26	54	17.0	17.4	24.1
CLEAR CREEK RIDGE #1	9200	3/29	43	15.3	12.2	19.5
CLEAR CREEK RIDGE #2	8000	3/29	40	12.1	9.7	14.7
CLEAR CREEK RIDGE #3	6600	3/29	13	4.6	3.0	6.1
CURRENT CREEK	8000	3/29	14	4.9	4.5	9.3
DANIELS-STRAWBERRY	8000	3/29	28	9.8	8.0	15.1
DESERET PEAK	9250	4/01	38	11.1	19.0	27.9
DILL'S CAMP	9200	3/29	24	6.1	8.1	12.8
DONKEY RESERVOIR	9800	4/01	-	7.5E	14.0	7.9
DRY BREAD POND	8350	3/25	38	11.4	7.7	19.5
DUCK CREEK R.S.	8700	3/27	-	4.1E	13.3	14.2
EAST SHINGLE LAKE	9800	4/06	60	19.2	18.8	27.0
EAST WILLOW CREEK	8250	4/01	40	10.0	9.6	11.1
FARMINGTON CANYON	8000	3/26	50	15.8	19.6	32.9
FARMINGTON CANYON L.	6950	3/26	42	13.4	16.4	25.2
FARNSWORTH LAKE	9600	3/27	60	18.6	20.3	20.6

## SNOW MEASUREMENT DATA (cont.)

SNOW COURSE	ELEV.	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 1961-85
FISH LAKE	8700	3/27	21	6.7	6.8	8.7
FIVE POINT LAKE	11000	4/06	39	9.4	14.3	16.3
FRANCES FLATS	6700	3/29	23	9.0	13.5	17.0
G.B.R.C. HEADQUARTER	8700	3/29	42	13.2	14.4	18.3
G.B.R.C. MEADOWS	10000	3/29	59	18.4	19.7	25.0
GARDEN CITY SUMMIT	7600	3/25	40	12.5	7.9	18.3
GEORGE CREEK	8840	3/26	49	15.0	16.2	23.2
GOOSEBERRY R.S.	8000	3/27	35	11.6	12.5	12.8
HARDSCRABBLE	6700	3/26	34	11.4	11.4	19.4
HARRIS FLAT	7700	3/27	0	.0	7.8	8.7
HAYDEN FORK	9400	4/01	38	11.5	11.2	16.0
HENRY'S FORK	10000	4/06	46	12.0	13.2	14.0
HEWINTA G.S.	9500	4/01	44	10.8	9.3	9.7
HIDDEN SPRINGS	5500	3/29	0	.0	.6	4.3
HOLE-IN-THE-ROCK	9150	4/01	44	7.9	7.0	6.1
HOLE-IN-THE-ROCK GS	8300	4/07	24	5.3	5.0	2.9
HICKERSON PARK	9100	4/01	46	10.6	8.4	7.1
HOBBLE CREEK SUMMIT	7420	3/29	27	9.8	8.2	14.8
HORSE RIDGE	8260	3/25	42	14.1	10.1	22.3
HUNTINGTON-HORSESHOE	9800	3/29	52	18.4	17.8	26.1
INDIAN CANYON	9100	3/29	34	9.5	11.3	13.5
JOHNSON VALLEY	8850	3/27	15	4.6	5.0	7.5
KILFOIL CREEK	7300	3/25	36	9.7	9.8	14.8
KILLYON CANYON	6300	3/30	8	1.9	5.2	2.8
KIMBERLY MINE (UPPER)	9300	3/26	43	14.9	18.2	17.1
KING'S CABIN (UPPER)	8730	4/01	25	5.3	8.2	11.0
KLONDIKE NARROWS	7400	3/25	44	14.3	10.4	20.7
KOLOB-CRYSTAL	9250	3/27	48	16.8	18.0	23.3
LAKEFORK BASIN	11100	4/06	48	14.4	15.2	21.4
LAKEFORK MOUNTAIN #1	10200	4/01	27	6.8	10.2	11.7
LAKEFORK MOUNTAIN #3	8400	4/01	10	2.8	5.5	6.2
LAMBS CANYON	7400	3/31	37	11.5	15.4	16.8
LASAL MOUNTAIN LOWER	8800	3/30	24	8.4	12.4	10.1
LASAL MOUNTAIN (UPP)	9850	3/30	47	15.4	22.9	17.1
LIGHTNING LAKE	10500	4/06	54	16.7	20.2	23.8
LILY LAKE	9050	4/01	40	11.6	11.5	15.2
LITTLE BEAR (LOWER)	6000	3/26	20	7.3	6.7	10.2
LITTLE BEAR (UPPER)	6550	3/26	19	7.0	7.3	13.2
LITTLE GRASSY CREEK	6100	3/27	0	.0	2.3	2.3
LONG FLAT	8000	3/27	12	4.3	10.6	7.0
LONG VALLEY JCT.	7500	3/27	0	.0	0.8	3.6
LOST CREEK RESERVOIR	6130	3/25	1	.3	1.2	4.0
MAMMOTH-COTTONWOOD	8800	3/29	46	17.0	12.2	22.6
MERCHANT VALLEY (UP)	8750	3/26	33	9.8	8.1	11.7
MIDDLE BEAVER CREEK	8650	4/07	23	5.0	6.4	5.2
MIDDLE CANYON	7000	4/01	36	12.0	17.0	15.0
MIDWAY VALLEY	9800	3/27	55	16.5	20.3	23.6
MILL CREEK	6950	4/04	42	13.2	17.1	22.0
MILL D SOUTH FORK	7400	4/04	37	12.6	16.2	20.3

## SNOW MEASUREMENT DATA (cont.)

SNOW COURSE	ELEV.	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 1961-85
MONTE CRISTO R.S.	8960	3/25	51	16.3	13.9	25.8
MOSBY MOUNTAIN (LOW)	9500	4/01	22	5.4	8.6	10.3
MT. BALDY R.S.	9500	3/29	59	19.5	18.4	25.0
MUD CREEK #2	8600	3/29	36	11.1	10.5	13.9
OAK CREEK	7760	3/26	37	10.6	9.8	12.5
ONE MILE SUMMIT	7330	3/26	11	3.8	3.2	7.7
OTTER LAKE	9600	3/26	35	11.5	10.4	14.9
PANQUITCH LAKE	8200	3/26	0	.0	6.4	4.5
PARADISE PARK	10100	4/01	33	9.6	12.6	14.1
PARLEY'S CANYON SUM.	7500	3/31	46	13.8	15.6	19.2
PAYSON R.S.	8050	3/26	42	15.0	16.6	19.7
PICKLE KEG SPRING	9600	3/27	37	12.6	13.0	17.2
PINE CANYON	8000	3/25	37	10.4	11.0	20.0
PINE CREEK	8800	3/26	43	17.9	17.0	17.2
REDDEN MINE LOWER	8500	3/29	39	11.9	11.1	18.8
RED PINE RIDGE	9200	3/29	40	13.0	12.5	18.0
REES'S FLAT	7300	3/26	32	10.4	8.9	13.8
REYNOLDS PARK	10400	4/06	49	12.7	15.4	17.7
ROCK CREEK	7900	4/01	5	1.5	5.3	6.8
ROCKY BASIN-SETTLEMENT	8900	4/01	67	19.9	27.0	29.1
SEELEY CREEK R.S.	10000	3/29	42	12.9	14.7	18.2
SERGEANT LAKES	8300	4/06	26	7.8	9.1	18.8
SHINGLE MILL	6200	3/31	39	10.6	9.6	9.5
SILVER LAKE (BRIGHT.)	8730	4/04	48	16.4	19.3	26.3
SMITH & MOREHOUSE	7600	3/29	29	8.9	9.5	13.6
SNOWBIRD GAD VALLEY	9700	3/28	74	23.8	33.0	34.9
SOAPSTONE R.S.	7800	4/01	-	6.7E	7.2	12.1
SPIRIT LAKE	10300	4/01	52	11.6	16.8	13.5
SQUAW SPRINGS	9300	3/27	15	4.3	5.8	7.6
TEEL CREEK PARK	10100	4/01	61	16.5	16.3	16.4
TILLWATER CAMP	8550	4/01	33	8.7	7.7	11.0
TRAWBERRY DIVIDE	8400	3/31	40	14.0	11.6	19.9
TUART R.S.	7950	3/29	8	2.4	5.9	8.2
USC RANCH	8200	3/29	0	0.0	7.9	7.9
ALL POLES	8800	3/29	38	12.2	12.4	15.5
HAYNES CANYON	9200	3/29	51	14.8	18.5	-
HISTLE FLAT	8500	3/29	41	13.6	13.9	17.8
IMPANOGOS DIVIDE	8140	3/29	34	10.2	13.0	25.5
ONY GROVE LAKE	8400	3/25	76	26.0	17.0	37.1
ONY GROVE R.S.	6250	3/25	27	9.2	5.8	12.1
TRIAL LAKE	9960	4/01	52	16.2	14.2	24.7
ROUT CREEK	9400	4/01	33	7.9	9.9	11.2
UPPER JOES VALLEY	8900	3/29	27	8.1	6.7	10.9
VERNON CREEK	7500	4/01	-	9.5E	5.9	10.7
WIPONT	7670	3/26	33	10.2	9.8	16.5
WEBSTER FLAT	9200	3/27	31	10.3	16.6	18.8
WHITE RIVER #1	8550	3/29	36	10.8	9.1	14.0
WHITE RIVER #3	7400	3/29	22	8.2	4.7	7.3
WIDTSOE-ESCALANTE #3	9500	3/27	40	10.4	17.4	12.3
WIGLEY CREEK	9000	3/29	27	7.1	9.9	11.9
YANKEE RESERVOIR	8700	3/26	31	9.7	13.2	10.4



United States  
Department of  
Agriculture

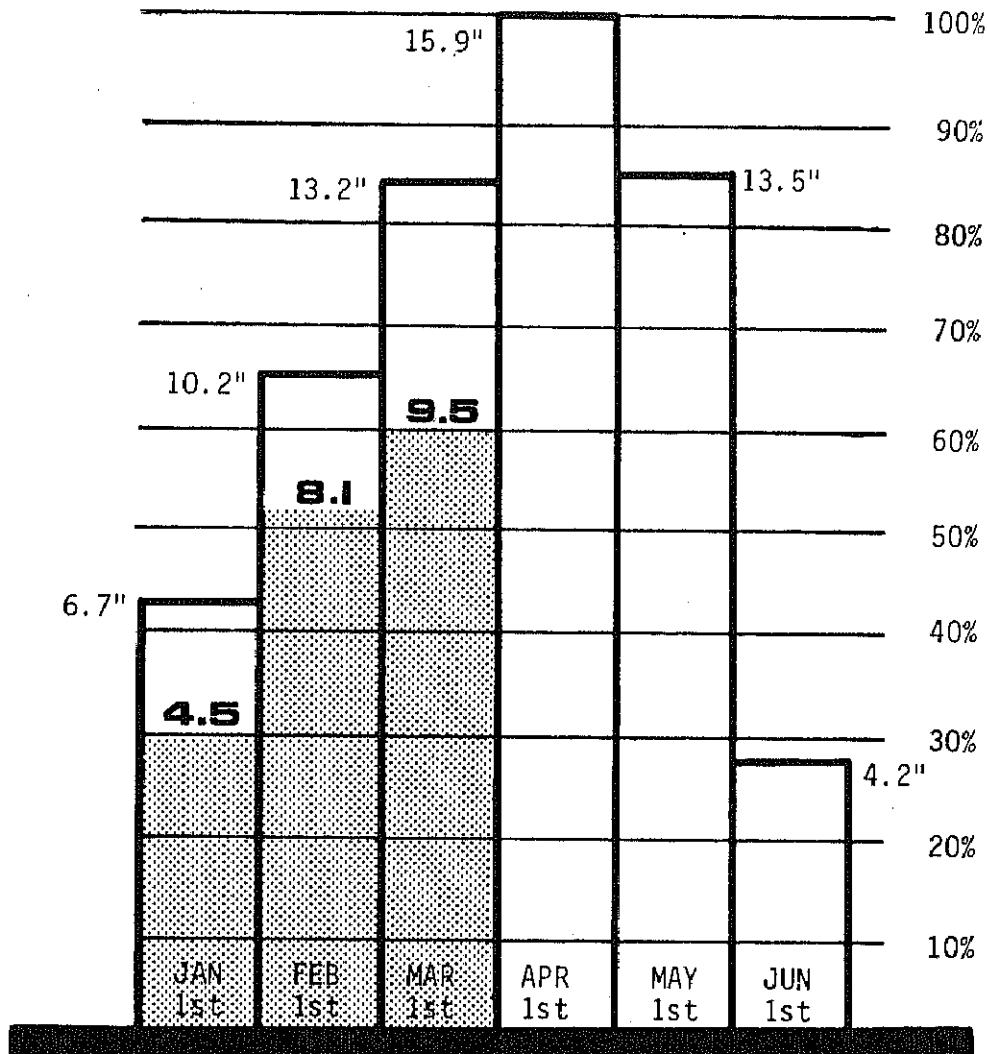
Soil  
Conservation  
Service

Salt Lake City,  
Utah



# Utah Snowpack Progress

1988



## Statewide

### NOTE :

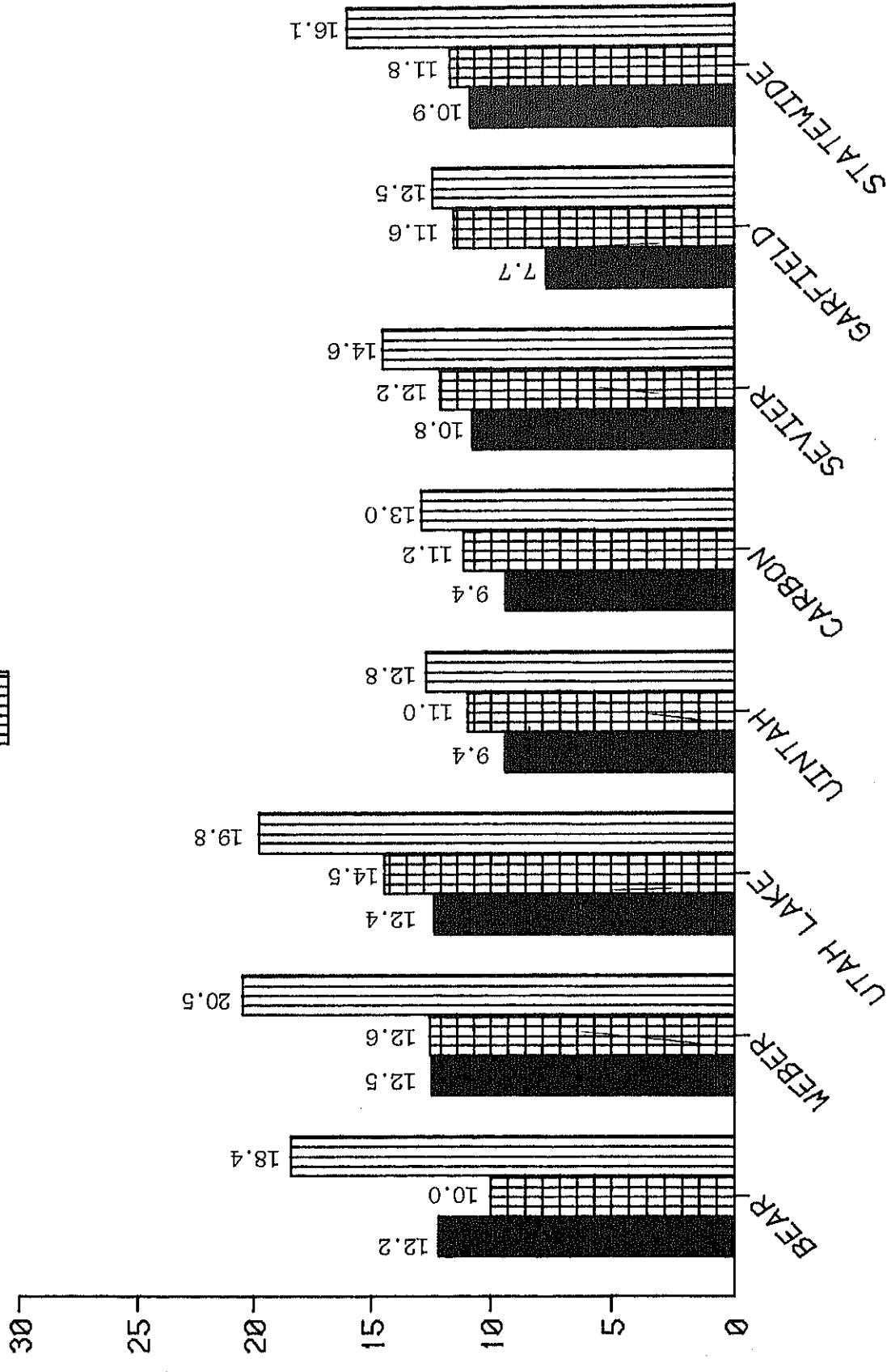
Snow water equivalent in inches is compared to the highest seasonal amount ( 100% ). Monthly averages are accumulated by basin/state.

Averages are for the period 1961-1985.

# 1988 SNOWPACK COMPARISON

April 1, 1988

04/01/88  
04/01 AVERAGE  
04/01/87







## The Following Organizations Cooperate With The Soil Conservation Service In Snow Survey Work

### **State**

Utah State University  
Utah State Department of Natural Resources  
Division of Wildlife Resources  
Division of Water Resources  
Division of Water Rights  
Bear River Commissioner  
Price River Commissioner  
Provo River Commissioner  
Sevier River Commissioners  
Spanish Fork River Commissioner  
Utah Lake and Jordan River Commissioner

### **Federal**

U.S. Department of Agriculture  
Soil Conservation Service  
Forest Service  
U.S. Department of Commerce  
NOAA, National Weather Service  
U.S. Department of Interior  
Bureau of Reclamation  
Geological Survey  
National Park Service

### **Municipality**

Manti  
Salt Lake City

### **Public**

Beaver River Water Users Association  
Board of Canal Presidents - Jordan River  
Central Utah Conservancy District  
Emery Canal and Reservoir Company  
Moon Lake Water Users Association  
Ogden River Water Users Association  
Provo River Water Users Association  
Strawberry Water Users Association  
Sevier River Water Users Association  
Weber River Water Users Association  
Weber Basin Conservancy District

Other organizations and individuals furnish  
information for the snow survey reports.  
Their cooperation is gratefully acknowledged.

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age, handicap, or national origin.